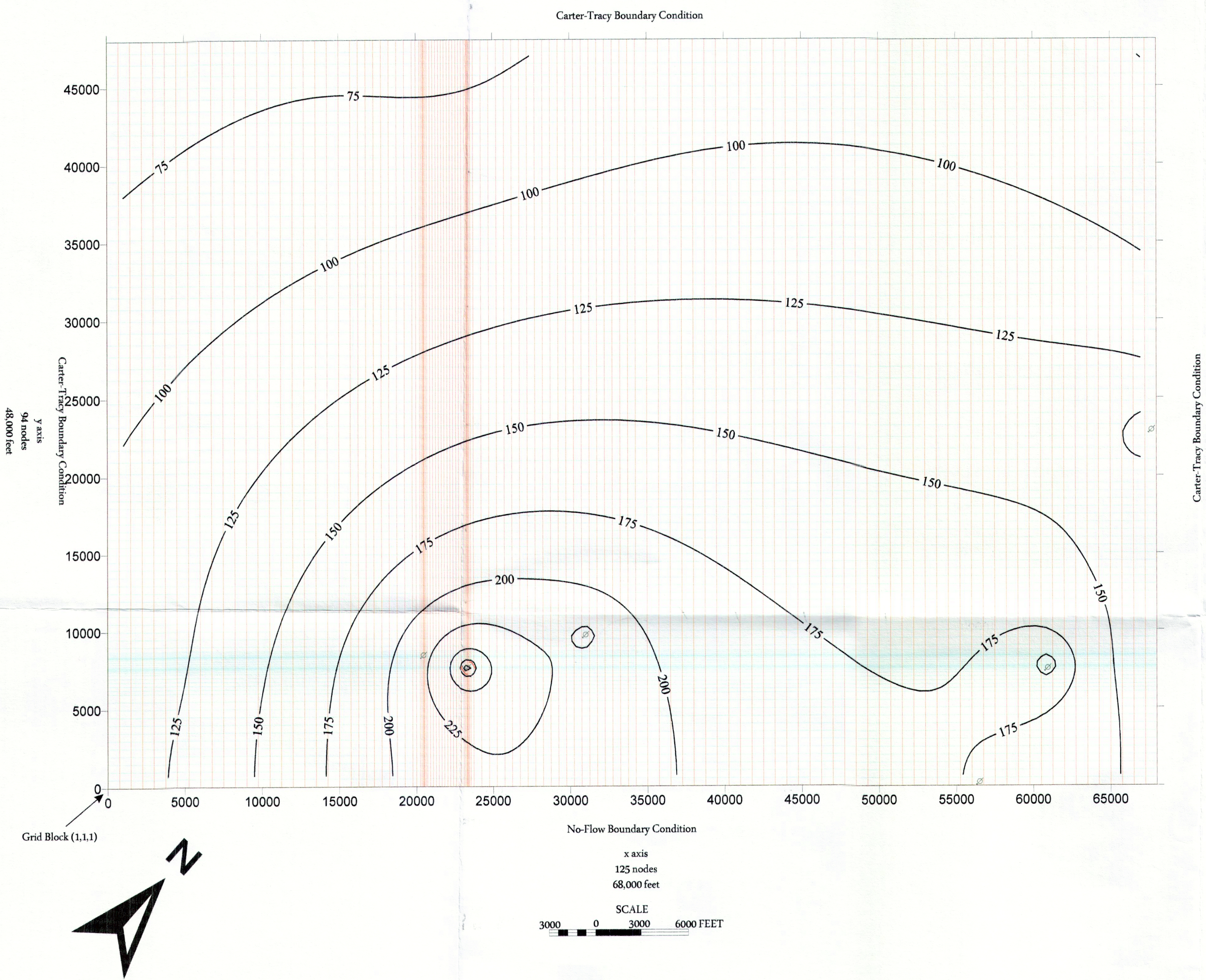


ExMob_EF Pressure_A

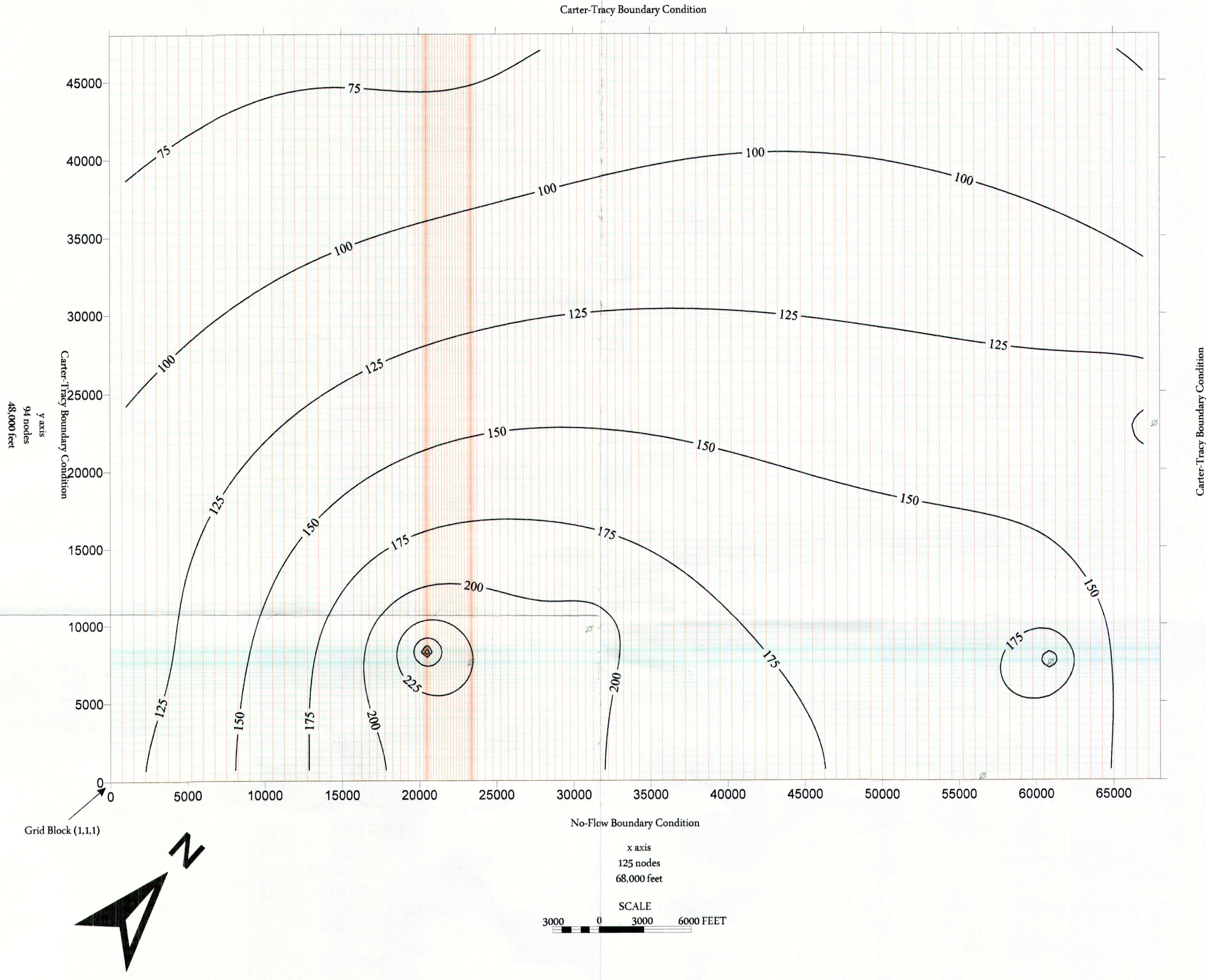


SWIFT Input File No.:	Model Run Description	Input Parameters	Parameter Value
ExMob_EF Pressure_A.dat	Reservoir pressure buildup at end of operations in Frio E&F Sand. Injection into offset injection wells is included in SWIFT model simulation. Historical injection into WDW-397 from July 1, 2008 until December 31, 2008 at 700 gpm. Future injection into WDW-397 at 1,200 gpm from January 1, 2009 until December 31, 2020.	Reservoir Flow Capacity Hydraulic Conductivity Intrinsic Permeability (k) Porosity Reservoir Thickness (h) Reservoir Dip Injectate Density Injectate Specific Gravity Injectate Viscosity* Reservoir Brine Density Reservoir Brine Specific Gravity Reservoir Brine Viscosity* Groundwater Flow Rate Rock Compressibility Fluid Compressibility Reservoir Temperature SWIFT Effective Diffusion Coefficient Longitudinal and Lateral Dispersivity	97,500 mD-ft 3.882 ft/day 650mD 0.28 150 ft variable structure 64.40 lb/ft ³ @ 169°F 1.05 @ 60°F 0.439 cP @ 169°F 66.18 lb/ft ³ @ 169°F 1.083 @ 60°F 0.487 cP @ 169°F 0.0 ft/yr 3.20 x 10 ⁻⁴ psi ⁻¹ 2.43 x 10 ⁻⁴ psi ⁻¹ 169°F 8.33 x 10 ⁻⁴ ft ² /day 100 ft and 10 ft

* variable viscosity with temperature from 60°F to 200°F

MODEL RESULTS SUMMARY: The maximum pressure buildup in the Frio E&F Sand in WDW-397 occurs on December 31, 2020. The reference depth for the model predicted bottom-hole pressures is 6,755 feet subsea. The maximum predicted flowing bottom-hole grid block pressure on December 31, 2020 is 3,354 psia. The maximum predicted flowing bottomhole well bore pressure on December 31, 2020 is 3,430 psia. The pre-injection native static reservoir pressure is 2,944 psia. Therefore, the pressure buildup in the grid block cell is no more than 410 psi and the pressure buildup predicted at the well is no more than 486 psi. The cone of endangering influence includes the area within the pressure isopleth representing a 281-psi increase in reservoir pressure. For SWIFT pressure model run ExMob_EF Pressure_A.dat, the 281-psi pressure contour extends no farther than 425 feet from the WDW-397 wellbore.

ExMob_EF Pressure_B

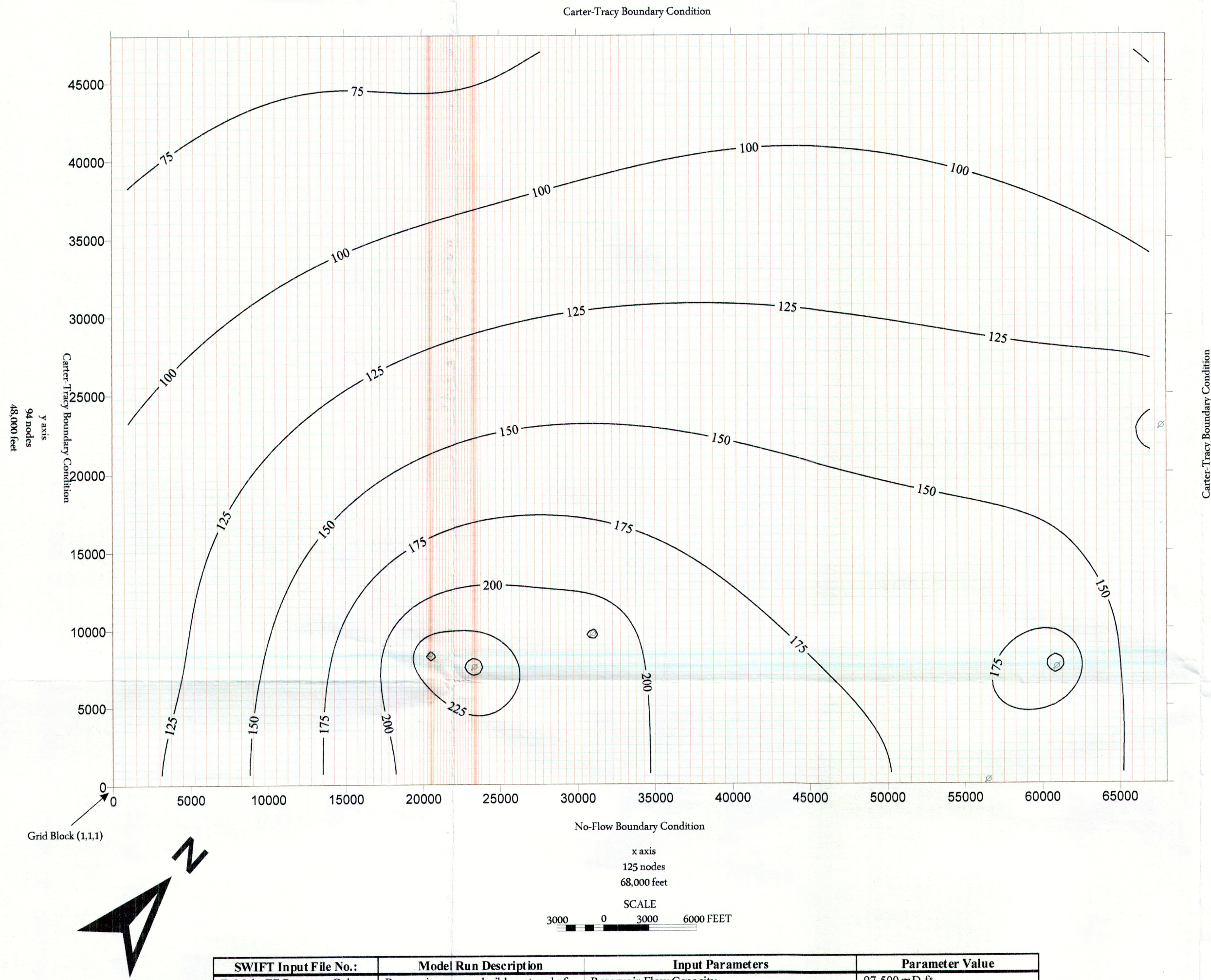


SWIFT Input File No.:	Model Run Description	Input Parameters	Parameter Value
ExMob_EF Pressure_B.dat	Reservoir pressure buildup at end of operations in Frio E&F Sand. Injection into offset injection wells is included in SWIFT model simulation. Historical injection into WDW-397 from July 1, 2008 until December 31, 2008 at 700 gpm. Future injection into WDW-398 at 1,200 gpm from January 1, 2009 until December 31, 2020.	Reservoir Flow Capacity Hydraulic Conductivity Intrinsic Permeability (k) Porosity Reservoir Thickness (h) Reservoir Dip Injectate Density Injectate Specific Gravity Injectate Viscosity* Reservoir Brine Density Reservoir Brine Specific Gravity Reservoir Brine Viscosity* Groundwater Flow Rate Rock Compressibility Fluid Compressibility Reservoir Temperature SWIFT Effective Diffusion Coefficient Longitudinal and Lateral Dispersivity	97,500 mD-ft 3.882 ft/day 650mD 0.28 150 ft variable structure 64.40 lb/ft ³ @ 169°F 1.05 @ 60°F 0.439 cP @ 169°F 66.18 lb/ft ³ @ 169°F 1.083 @ 60°F 0.487 cP @ 169°F 0.0 ft/yr 3.20 x 10 ⁻⁴ psi ⁻¹ 2.43 x 10 ⁻⁴ psi ⁻¹ 169°F 8.33 x 10 ⁻⁴ ft ² /day 100 ft and 10 ft

* variable viscosity with temperature from 60°F to 200°F

MODEL RESULTS SUMMARY: The maximum pressure buildup in the Frio E&F Sand in WDW-398 occurs on December 31, 2020. The maximum predicted flowing bottom-hole grid block pressure on December 31, 2020 is 3,358 psia. The maximum predicted flowing bottomhole well bore pressure on December 31, 2020 is 3,440 psia. The pre-injection native static reservoir pressure is 2,960 psia. Therefore, the pressure buildup in the grid block cell is no more than 398 psi and the pressure buildup predicted at the well is no more than 480 psi. The cone of endangering influence includes the area within the pressure isopleth representing a 281-psi increase in reservoir pressure. For SWIFT pressure model run ExMob_EF Pressure_B.dat, the 281-psi pressure contour extends no farther than 300 feet from the WDW-398 wellbore.

ExMob_EF Pressure_C



SWIFT Input File No.:	Model Run Description	Input Parameters	Parameter Value
ExMob_EF Pressure_C.dat	Reservoir pressure buildup at end of operations in Frio E&F Sand. Injection into offset injection wells is included in SWIFT model simulation. Historical injection into WDW-397 from July 1, 2008 until December 31, 2008 at 700 gpm. Future injection into WDW-397 and WDW-398 at 600 gpm (each) from January 1, 2009 until December 31, 2020.	Reservoir Flow Capacity Hydraulic Conductivity Intrinsic Permeability (k) Porosity Reservoir Thickness (h) Reservoir Dip Injectate Density Injectate Specific Gravity Injectate Viscosity* Reservoir Brine Density Reservoir Brine Specific Gravity Reservoir Brine Viscosity* Groundwater Flow Rate Rock Compressibility Fluid Compressibility Reservoir Temperature SWIFT Effective Diffusion Coefficient Longitudinal and Lateral Dispersivity	97,500 mD-ft 3.882 ft/day 650mD 0.28 150 ft variable structure 64.40 lb/ft ³ @ 169°F 1.05 @ 60°F 0.439 cP @ 169°F 66.18 lb/ft ³ @ 169°F 1.083 @ 60°F 0.487 cP @ 169°F 0.0 ft/yr 3.20 x 10 ⁻⁴ psi ⁻¹ 2.43 x 10 ⁻⁴ psi ⁻¹ 169°F 8.33 x 10 ⁻⁴ ft ² /day 100 ft and 10 ft

* variable viscosity with temperature from 60°F to 200°F

MODEL RESULTS SUMMARY: The maximum predicted flowing bottom-hole grid block pressure in WDW-397 on December 31, 2020 is 3,262 psia. The maximum predicted flowing bottom-hole well bore pressure in WDW-397 on December 31, 2020 is 3,300 psia. The pre-injection native static reservoir pressure is 2,944 psia. Therefore, the pressure buildup in the grid block cell for WDW-397 is no more than 318 psi and the pressure buildup predicted at the well is no more than 356 psi. The maximum predicted flowing bottom-hole grid block pressure in WDW-398 on December 31, 2020 is 3,269 psia. The maximum predicted flowing bottom-hole well bore pressure in WDW-398 on December 31, 2020 is 3,310 psia. The pre-injection native static reservoir pressure is 2,960 psia. Therefore, the pressure buildup in the grid block cell for WDW-398 is no more than 309 psi and the pressure buildup predicted at the well is no more than 350 psi. For SWIFT pressure model run ExMob_EF Pressure_C.dat, the 281-psi pressure contour extends no farther than 100 feet from the WDW-397 wellbore and no more than 50 feet from the WDW-398 wellbore.

PLATE 7-8



**PRESSURE BUILDUP
MODEL GRID AND RESULTS
(ExMob_EF Pressure)
(Frio E&F Sand Pressure Models)**

PREPARED FOR:

**EXXON MOBIL CORPORATION
PASADENA, TEXAS**

DRAWN BY	tdm	SCALE	DATE
DESIGNED BY	SAME	As Indicated	02-14-2011
CHECKED BY	T. Moody		11-101